

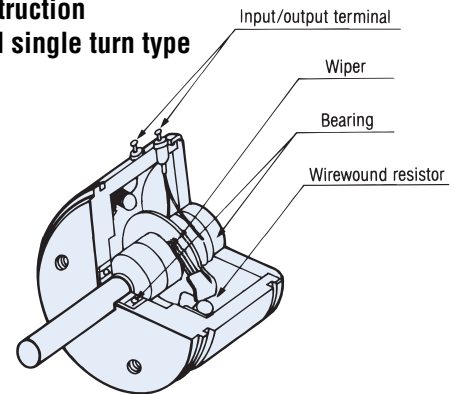
WIREWOUND SINGLE TURN TYPE

J series



Basic construction

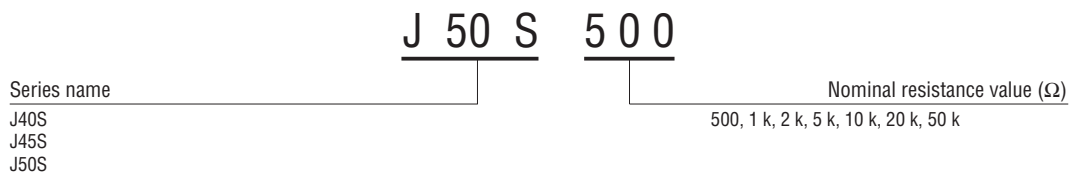
Wirewound single turn type



FEATURES

- High linearity through precision wire winding
- Long life
- High following characteristics
- Low noise

PART NUMBER DESIGNATION



LIST OF PART NUMBERS

Size \ Item	Nominal resistance value	Part number
ϕ 40 mm	500 Ω	J40S 500
	1 k Ω	J40S 1 k
	2 k Ω	J40S 2 k
	5 k Ω	J40S 5 k
	10 k Ω	J40S 10 k
ϕ 44.45 mm	500 Ω	J45S 500
	1 k Ω	J45S 1 k
	2 k Ω	J45S 2 k
	5 k Ω	J45S 5 k
	10 k Ω	J45S 10 k
	20 k Ω	J45S 20 k
	50 k Ω	J45S 50 k
ϕ 50.8 mm	500 Ω	J50S 500
	1 k Ω	J50S 1 k
	2 k Ω	J50S 2 k
	5 k Ω	J50S 5 k
	10 k Ω	J50S 10 k
	20 k Ω	J50S 20 k
	50 k Ω	J50S 50 k

* Verify the above part numbers when placing orders.

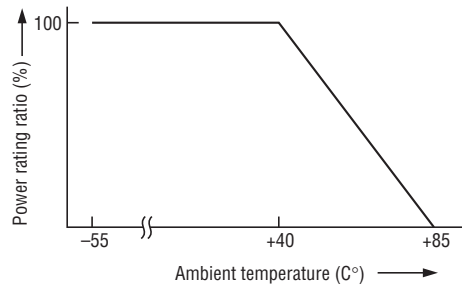
STANDARD SPECIFICATIONS

Item	Part number	J40S	J45S	J50S
Nominal resistance tolerance %		± 5		
Effective electrical angle		$350^\circ \pm 1.5^\circ$	$353^\circ \pm 1.5^\circ$	$355^\circ \pm 1.5^\circ$
Mechanical angle		360° continuous		
Power rating (at 40 °C)	W	1	1.3	1.5
Dielectric strength	Vrms	1000 1 min		
Insulation resistance	M Ω minimum	1000 (at DC500 V)		
Rotational torque	mN·m {gf·cm} maximum	0.59 {6}		0.69 {7}
Peak noise	Ω maximum	10 (4 min ⁻¹)		
Temp. coefficient resistance	ppm/°C	± 50		
Operating temp. range	°C	-55 ~ 85		
Maximum rotational speed	min ⁻¹	100	200	
Net weight	g	Approx. 60	Approx. 58	Approx. 73
Connecting accuracy		$\pm 1^\circ$ Based on No. 1 terminal		

RESISTANCE VALUES, RESOLUTION, INDEPENDENT LINEARITY, ROTATIONAL LIFE

Nominal resistance value (Ω)	Resolution (%)			Independent linearity (%)			Rotational life (million cycles)		
	J40S	J45S	J50S	J40S	J45S	J50S	J40S	J45S	J50S
500	0.13	0.12	0.1	±0.15	±0.1	±0.1	5	10	10
1 k	0.1	0.1	0.08						
2 k	0.08	0.07	0.06						
5 k	0.07	0.08	0.07	—	±0.15	±0.15	1	1	1
10 k		0.07	0.05						
20 k	—	0.05	0.05	—	—	—	—	—	—
50 k	—	0.04	0.03	—	—	—	—	—	—

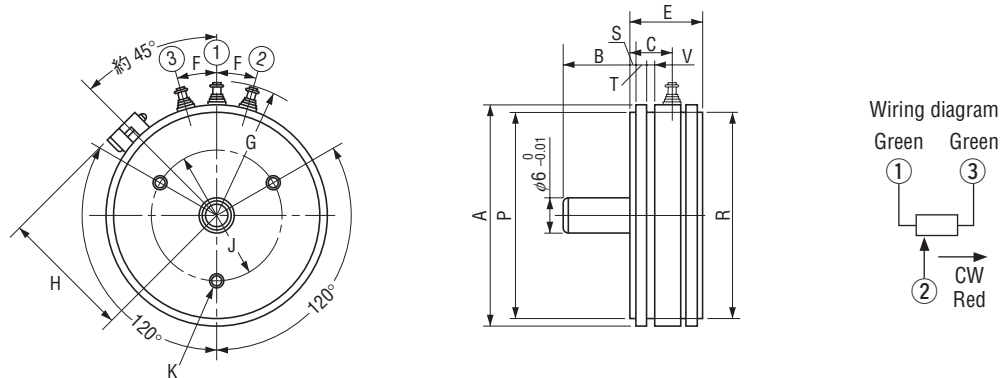
RATED POWER DERATING CURVE



OUTLINE DIMENSIONS

- J40S
- J45S
- J50S

(Unit : mm)



List of outline dimensions

Part number	Marks	A	B	C	E	F	G	H	J	K	P	R	S	T	V
J40S	φ 40	20	13.3	20	16°	R25	25	φ 30	M 3 (P = 0.5) D = 3.0 minimum	φ 37 ⁰ _{-0.03}	φ 37	1.57	2.36	1.86	
J45S	φ 44.45														
J50S	φ 50.8														